

A LETTER TO TEACHERS

Dear teachers,

Greetings from Shriram Foundation!

This month we begin a new feature: it is a feature about your school. In the new feature *From Our Schools*, we would like to share interesting ideas, activities and programs that you run in your school. So if you have started or are conducting a program that is popular and unique, please write to us about it. Or tell our Coordinators when they visit your school. Send us photos of the program. We will feature you in our new column.

Tell us about your school's good work. Let everyone learn from you.

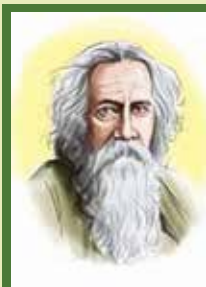
At Shriram Foundation, we look forward to hearing from you about your experiences. Write to us at m100.shriramfdn@gmail.com.

Warm regards
Editor



WISE WORDS

Here are some proverbs, sayings and quotations from all over the world to inspire you. You may write or display them on your blackboards or notice boards, explain and discuss them with your students.



"The highest education is that which merely does not give us information but makes our life in harmony with all existence."

— Rabindranath Tagore



"The more that you read, the more things you will know. The more that you learn, the more places you'll go."

— Dr. Suess

IN THE NEWS

It is important for children to know what's happening in the world around them. You may think of introducing a news discussion time in your classrooms once a week! To start with, you can use this small snippet!

A neat solution to a pressing problem

The solution to Delhi's pollution problem is finally here. Indian Railways has introduced the Roll-on Roll-off (RO-RO) service from Gurugram, the national capital region in Delhi. Under this scheme, heavy vehicles like trucks are given a "lift"! They are loaded on to rail wagons from Garhi Harsuru station in Gurugram and dropped off at Muradnagar in Uttar Pradesh. This way the roads are decongested and the pollution is also under control.



STORY OF THE MONTH

Kailash Satyarthi



Every year April 30th is observed as Anti-Child Labour Day. On this day, why not inspire your students with the story of Kailash Satyarthi, the Nobel Peace Prize winner, who saved thousands of children across different countries from slavery and child labour?



STOP CHILD LABOUR STOP CHILD LABOUR STOP CHILD LABOUR STOP CHILD LABOUR STOP CHILD LABOUR STOP CHILD LABOUR STOP CHILD LABOUR STOP CHILD LABOUR STOP CHILD LABOUR STOP CHILD LABOUR

Kailash Satyarthi was born on 11th January, 1954 in the Vidisha district in the central Indian state of Madhya Pradesh. He did his schooling in the Government Boys' Higher Secondary School in his town.



On his first day at school, he met a cobbler boy sitting outside school, polishing shoes. He asked his teachers why the boy was working and not at school with him. The teachers had no answer. One day, when he asked the boy's father about it, he said, "Sir, I have never thought about it. We are just born to work." This incident angered young Kailash and made him aware of the issue of child labour even at a tender age.

After he finished his schooling, he did his degree in electrical engineering and a post-graduate degree in high-voltage engineering.

In 1980, he gave up his career as an electrical engineer and founded the Bachpan Bachao Andolan (Save the Childhood Movement). The objective of this organization was to rescue child labourers. It adopted a policy of "raid and rescue" in which its activists and the police stormed into factories employing child workers. In this process, many members of the team were beaten up and even received death threats. But this did not stop them from continuing their work. Over the years, they have rescued about 80,000 children from child labour and ensured that these children go to school.

Kaliash Satyarthi also heads the Global March Against Child Labour, a network of about 2,000 social groups and union organizations in 140 countries working to abolish child slavery. He also serves on the board and committee of several international organizations. He worked with UNESCO for establishing the Global Task Force on Child Labor and Education.

His untiring efforts have won him many awards, nationally and internationally. In 2014, he was awarded the Nobel Peace Prize in recognition of his work in the area of stopping child labour.

The awards might be many, but still his "march" continues. As he said in his speech for the Nobel Prize, let us "march from exploitation to education, from poverty to shared prosperity, from slavery to liberty, and from violence to peace."

PUZZLE

Math Riddles

Here' are some Math puzzles for different age-groups of children.

1. Five children took part in competitions in which it was possible to score 60 points.

- Chitra scored 35% of the possible 60 points.
- Ravi scored 54 of the possible points.
- Kishore scored half as many points as Ravi.

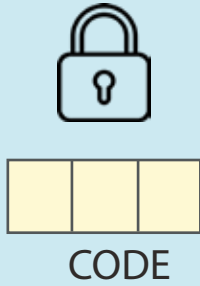


- Faredha scored 12 fewer points than Kishore.
- Daniel scored $\frac{1}{3}$ of the possible points.

What percent of the total 60 points did each person score?

List the competitors from first to fifth place, with the highest-scoring competitor listed first.

2. Will you crack the code?



6	8	2	One number is correct and well placed
6	1	4	One number is correct but in the wrong place
2	0	6	Two numbers are correct but in the wrong places
7	3	8	Nothing is correct
8	7	0	One number is correct but in the wrong place

3. Move only three coins and turn the triangle upside down.



QUIZ

Health and Nutrition



April 7 is commemorated as World Health Day. On this occasion, here's a quiz on Health and Nutrition for your students.



1. Which nutrient is the main source of energy for the body?
2. Orange juice contains plenty of vitamin
3. How many minutes of exercise do children need per day to keep good health?
4. What are bananas a good source of?
5. Which of these foods has lots of fiber: white rice or beans and apple?
6. How many litres of water should children drink in a day?
7. What do you call the substance that is usually injected into a person or animal to protect against a particular disease?
8. True or False: Going out in the sun helps you burn fat.
9. True or False: If you study all night before the exam, you will remember your notes better.
10. True or False: When we buy food items or medicines from a shop, it is important to check the Expiry date/Best before date.



Dear Science Teachers,

Welcome to the April edition of Science at School – the monthly magazine specially for you!

In this edition, we bring to you recent events in science, puzzles, science classroom and vacation activities and much more!

Invention of the Month: Ball point pen

Some things around us are so common that we hardly ever stop to wonder about how they first came to be. It is very interesting to learn the 'story' of such everyday things. Ever wondered why the ball point pens were invented or how they work?

The story begins in 1888 in America where John J. Loud was trying to create a pen that could write on leather surfaces. He used a small steel ball that was fitted in a socket, such that it could not fall in or out but rotate freely. But though the pen could write on leather, it was too hard to write on paper. Hence the invention was considered a failure at that time.



Later, many people tried to improve the design but failed. The breakthrough came when László Bíró, a Hungarian newspaper editor, modified the design of the pen. He included an ink cartridge in the pen. He used the same ball and socket mechanism as Loud, but now the ball could pull ink from the cartridge as it rotated. The ink was also changed to easily-drying ink. This made the invention practical. The pens were initially advertised as the only pens which could write even under water.

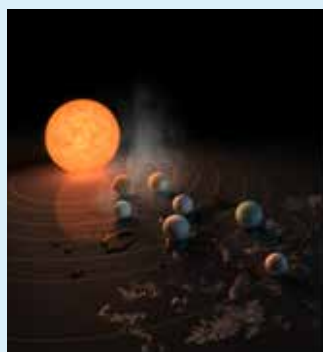


In the early 1950s, the Reynold's company manufactured its own ballpoint pen, called "Reynolds Rocket". This was the first commercially successful ballpoint pen.

The story doesn't end here. The designs are still evolving as more and more inventors are trying to make their own designs. So next time, you pick up a ball pen, check out how it works!

Classroom Activity: Ask students to find out the story of the invention of some other everyday things and present it to the rest of the class.

Science in the News

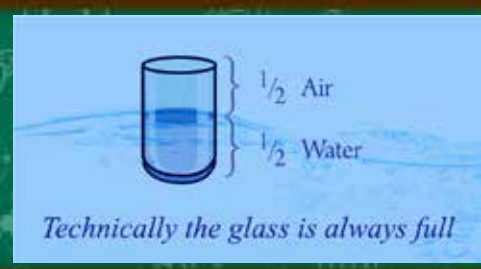


From Science fiction to reality: Discovery of 7 exoplanets

In one of the most exciting discoveries of our time, the US space agency, NASA has announced the discovery of a new solar system. The new system is located 40 light years away from the sun. This system consists of seven Earth-sized planets revolving around the star called TRAPPIST-1. What makes this discovery even more intriguing is the fact that three of these planets are in the habitable zone, which means that there is a chance of finding alternate life forms on them. NASA is planning to launch another satellite in 2018 for a more detailed study of these planets.

So Sci-Fi movies with those aliens might not be that far from the truth after all!

Classroom Activity: Ask students to imagine how life would be on another planet. They can perform a drama or dialogue on their conversation with aliens.



In the classroom- Activity trail

As the exams draw to a close and children have more time at school to explore, here's an interesting activity you can engage them in.

An "activity trail" is designed to lead the children to a number of places. At each place, they have a challenge to solve, which needs careful observation, measurement, reasoning or even an experiment! It is also a great way to build scientific inquiry in students without the need for any equipment. Here are some examples of stations you can set up:

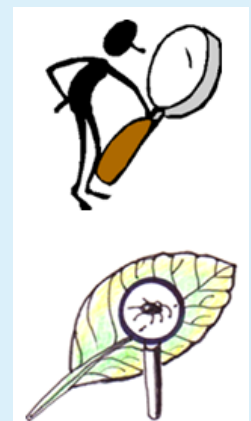
1. Stand outside the door on the steps. Make five observations which indicate that a wind is blowing. Write them down and note the time and date.
2. Observe the gulmohar tree in the school ground. Estimate its height.
3. Stand halfway to the school gate. Note all the sounds that you hear in two minutes. In how many ways can you group the sounds?
4. Notice the roof of your classroom. What is it made of? Is it flat or slanting? Why?



You can add many more interesting activities using any interesting feature of the school environment or starting from a specific skill you want the students to develop.

Make sure that:

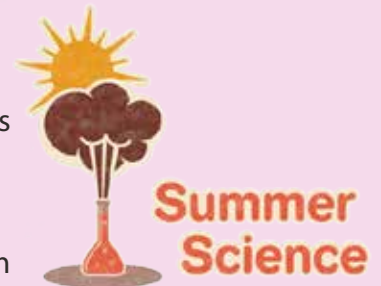
1. Activities are done in groups.
2. Questions are not knowledge-based, but action questions, that involve careful use of their senses.
3. The questions can be solved in any order.



Special Feature: Summer Science Activities

Here are some holiday science activity ideas for your students:

1. Observe the phases of the moon and make your own moon phases flipbook.
2. Plant a seed and record your observations about its growth every day.
3. Build a structure from old newspapers that can withstand the maximum weight. Give your reasons for choosing the design.
4. Make your own quiz based on what you learnt in class this year.
5. Build a car completely out of waste material (Ice cream sticks/ water bottles etc.)



THEME FOR THE MONTH

Summer Holiday Activities

As exams come to an end and the month of April begins, students look forward to summer vacation. Here are some fun activity ideas for children to try during their holidays:

1. **Family Tree:** Making their family tree could be a great activity for the children in the holidays. They can be encouraged to go back as many generations as they can.
2. **Invent a recipe:** Ask your students to make a summer drink and share it with their friends. For example, here's how to make the "paanakam": Take 1/3 cup of crushed or powdered jaggery and soak in 1 1/4 cup drinking water for few minutes. Once dissolved, filter it and add lemon juice taken from one lemon, 1/4 teaspoon crushed black pepper, 1/4 teaspoon dry ginger powder (or grated fresh ginger), two pods of crushed cardamom, salt and mix well. Encourage them to also write and share their recipe with the class after school re-opens.
3. **How many ways?** As they are exploring their neighbourhood during the evenings, let them find out how many routes they can take to the school, the vegetable shop, the field, or their friend's house. Give them a simple rule: No going back on the same track and they must take a new route each time.
4. **Break your own records:** Here's a great way to encourage physical activity as well as build precision skills in your students. Let them time their activities like walking, jogging, running, or cycling and then try to beat their own record, making sure the distance moved remains the same. Older children can also draw a graph to record their observations.
5. **Design catcher:** Ask children to identify different shapes, patterns and designs they observe around them at home and outdoors. They can draw the shapes in their notebooks and write where they saw them.
6. **Make your own Music:** Music can be produced from the simplest of items. Ask students to create musical instruments from materials found around their houses. They can display these in the class on the first day of school after the vacation.



EDUCATIONAL WEBSITE REVIEW

Khan Academy

Imagine a one-stop place where you can find math concepts from early learning through college-level in the form of tutorials, free of cost!

www.khanacademy.org

The Khan Academy website offers self-paced tutorials, unlimited number of practice exercises, organized by topic, with instant feedback and progress data. It covers a wide range of subjects from basic Math to Physics, Biology, Economics, Art, History, Computer Science, Health and Medicine and more. Khan Academy was founded by Sal Khan back in 2006, when he first uploaded a video to help tutor his cousin.

How it works:

Anyone can sign up on the website using a Google or Facebook account or any other email address. Once logged in, the person is free to choose where they want to start. Teachers can assign specific levels to each student in the class and ask them to move forward from there. The students will have their own profile, points and badges to monitor their progress. Teachers can also view where the students are and get real-time class reports for individual students. This data can be used by the teachers to target specific activities and lessons for each child.

However, please remember that learning through the site only supplements learning in the classroom. It cannot take the place of the teacher. The students need to have conceptual understanding that must be provided by the teacher in the classroom. Once that is done, they can use the website to strengthen their procedural skills.



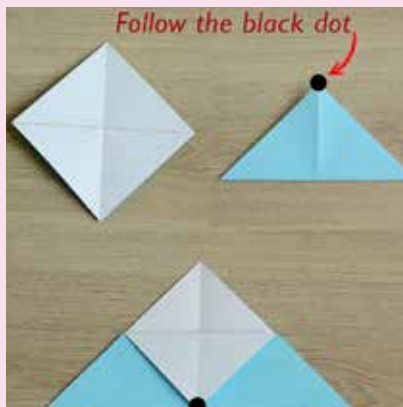
CREATIVE CORNER

Corner Bookmark

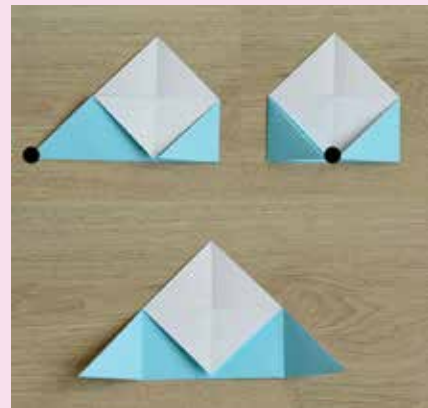
Children enjoy activities that involve paper-cutting and folding. Teach children to make their own bookmarks as follows:

Things needed

- Square shaped colour papers
- Markers and plain papers (optional)



Fold the paper diagonally (both diagonals). Then, fold it into a triangle and crease the fold. Now take hold of the top corner of the triangle (one paper only) and fold it towards the bottom as indicated by the black dot.



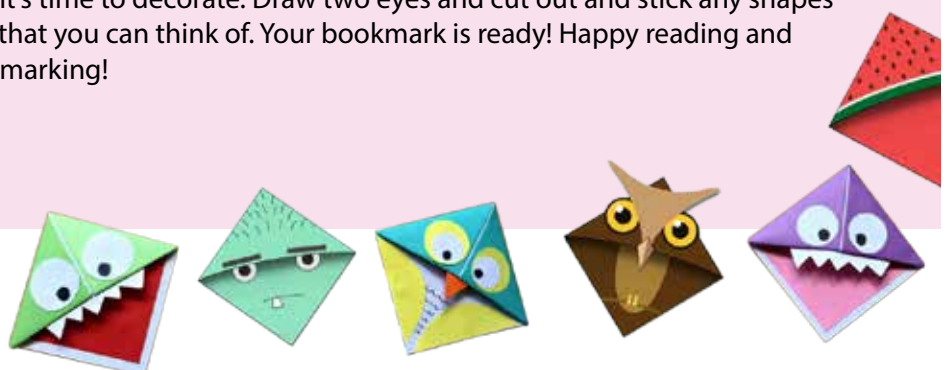
Grab one corner on the bottom and fold it toward the middle. Do the same with the other side and unfold both.



Now take one of the corners and fold it towards the top of the triangle (see the black dot). Do the same with the other corner. Tuck these two "flaps" into the pocket and you've got yourself a nice base to work on.



Now it's time to decorate. Draw two eyes and cut out and stick any shapes on it that you can think of. Your bookmark is ready! Happy reading and bookmarking!



FROM OUR SCHOOLS

Nirmal Hruday School's Radiomirchi Program

In this section, we will be sharing some good practices our team has observed in our M100 schools, so that all schools can learn from one another.

"It is not what is poured into a student that counts but what is planted."
- Linda Conway

During our team's recent visit to Nirmal Hruday School, Chillakallu, Jaggiahpet, we found that the school had introduced an innovative way to plant the seeds of self-confidence in their students.

Called the Nirmal Hruday Radiomirchi program, the idea was born when the School Correspondent, Mr. Prathap Reddy, observed a similar practice during a visit to Balaji School, Machilipatnam. He was quick to introduce the idea in his school. The program runs three times in a day: every morning, during lunch and after school. Students are called to share riddles, stories, jokes, dialogues, spiritual messages or sing songs using the school PA system.

Students are encouraged to participate and they are assigned time slots for their show. This program has been running successfully for the past six months and has helped many students overcome stage fear.

While the students love and enjoy the program, the parents also feel pleased to hear their children speak confidently over the microphone.



Answers

Quiz

1. Carbohydrates
2. Vitamin C
3. 60 minutes or more
4. Potassium
5. Beans and Apple
6. 1 litre for 5 to 8 year olds, 1.5 litres for 9 to 12 year olds, 2 litres for 13+ years
7. Vaccine
8. True. Sunlight changes some of the cholesterol in the skin to another molecule. This molecule helps strengthen bones.
9. False. Sleep is important for memory consolidation.
10. True

Puzzle

1. Points scored out of 60: Ravi: 54, Kishore: 27, Fareedha: 15, Daniel: 24, Chitra: 21

In percentage,

Ravi = 90%

Kishore = 45%

Daniel = 40%

Chitra = 35%

Fareedha = 25%

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